

CLAIMS

1 1. An electromagnetic compliant (EMC) shield for shielding
2 electronic components on a circuit board from electromagnetic
3 energy generated by electronics modules inside the EMC shield
4 and containing electromagnetic energy generated by the
5 electronic components on the circuit board from escaping to
6 outside the EMC shield, the EMC shield comprising:

7 a first side having a plurality of openings, each of
8 the openings configured to receive one of the electronics
9 modules; and

10 a second side having a bottom edge with a groove
11 therein to receive a conductive gasket, the first and
12 second sides extending substantially normal to the circuit
13 board when the EMC shield is mounted to the circuit board.

1 2. The EMC shield of claim 1 further comprising a plurality of
2 electrostatic discharge (ESD) tabs, each of the ESD tabs
3 disposed adjacent to a respective opening and configured for
4 electrical communication with a conductive element of a
5 respective one of the electronics modules.

1 3. The EMC shield of claim 1 further comprising a third side
2 disposed between the first and second sides, wherein the third
3 side has a plurality of fins for removal of heat generated
4 inside the EMC shield.

1 4. The EMC shield of claim 1 wherein the second side has a
2 plurality of fins for removal of heat generated inside the EMC
3 shield.

1 5. The EMC shield of claim 1 further comprising a conductive
2 gasket partially disposed in the groove in the bottom edge of
3 the second side.

1 6. The EMC shield of claim 1 further comprising one of the
2 electronics modules coupled to the EMC shield at one of the
3 openings in the first side and extending inside the EMC shield.

1 7. The EMC shield of claim 6 wherein the one of the
2 electronics modules comprises an optics module.

1 8. The EMC shield of claim 7 wherein the optics module
2 comprises a laser transmitter and a laser receiver.

1 9. The EMC shield of claim 1 wherein at least one of the first
2 and second sides has an opening adapted to receive a fastener
3 for attachment of the EMC shield to the circuit board.

1 10. The EMC shield of claim 1 wherein the first and second
2 sides are fabricated from a thermally conductive material.

1 11. A circuit having an electromagnetic compliant (EMC) shield
2 for shielding electronic components in the circuit from
3 electromagnetic energy generated by electronics modules inside
4 the EMC shield, the circuit comprising:

5 a circuit board having an electronic component mounted
6 thereon;

7 a first side having a plurality of openings, each of
8 the openings configured to receive one of the electronics
9 modules, the first side extending substantially normal to
10 the circuit board; and

11 a second side attached to the first side and having a
12 bottom edge with a groove therein to receive a conductive

13 gasket, the second side extending substantially normal to
14 the circuit board.

1 12. The circuit of claim 11 further comprising a plurality of
2 electrostatic discharge (ESD) tabs, each of the ESD tabs
3 disposed adjacent to a respective opening on the first side and
4 configured for electrical communication with a conductive
5 element of a respective one of the electronics modules.

1 13. The circuit of claim 11 further comprising a third side
2 disposed between the first and second sides, wherein the third
3 side has a plurality of fins for removal of heat generated
4 inside the EMC shield.

1 14. The circuit of claim 11 wherein the second side has a
2 plurality of fins for removal of heat generated inside the EMC
3 shield.

1 15. The circuit of claim 11 further comprising a conductive
2 gasket partially disposed in the groove in the bottom edge of
3 the second side.

1 16. The circuit of claim 11 further comprising one of the
2 electronics modules coupled to the EMC shield at one of the
3 openings in the first side and extending inside the EMC shield.

1 17. The circuit of claim 11 wherein at least one of the first
2 and second sides has an opening adapted to receive a fastener
3 for attachment of the EMC shield to the circuit board.

1 18. The circuit of claim 11 wherein the first and second sides
2 are fabricated from a thermally conductive material.

1 19. The circuit of claim 11 wherein the circuit board is a
2 printed circuit board.